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=> index bioscience
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INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS,

BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,

CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI,

CROPB, CROPU, DDFB, DDFU, DGENE,

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67 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> s (coat### (3a) electrode)(s)(static or electrostatic)(s)(deliver### or electropor?) and PY<1999</pre>

- 0* FILE ADISINSIGHT
- 5 FILES SEARCHED...
- 9 FILES SEARCHED...
- 14 FILES SEARCHED...
- 1 FILE CAPLUS
 18 FILES SEARCHED...
- 0* FILE CONFSCI
- 33 FILES SEARCHED...
 - 0* FILE FEDRIP
 - 0* FILE FOREGE
 - 4 FILE IFIPAT
- 44 FILES SEARCHED...
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- 51 FILES SEARCHED...
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- 59 FILES SEARCHED...
 - 8 FILE USPATFULL
 - 1 FILE WPIDS
- 66 FILES SEARCHED...
 - 1 FILE WPINDEX

5 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L1 QUE (COAT### (3A) ELECTRODE) (S) (STATIC OR ELECTROSTATIC) (S) (DELIVER### OR ELECTROPOR?) AND PY<1999

=> d rank

F1 8 USPATFULL F2 4 IFIPAT F3 1 CAPLUS F4 1 WPIDS F5 1 WPINDEX

=> file f1-5 COST IN U.S. DOLLARS SINCE FILE TOTAL

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FILE 'USPATFULL' ENTERED AT 15:46:25 ON 28 MAY 2003

CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'IFIPAT' ENTERED AT 15:46:25 ON 28 MAY 2003 COPYRIGHT (C) 2003 IFI CLAIMS(R) Patent Services (IFI)

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=> s 11

L2 14 L1

=> dup rem 12

PROCESSING COMPLETED FOR L2

L3 12 DUP REM L2 (2 DUPLICATES

REMOVED)

ANSWERS '1-8' FROM FILE

USPATFULL

ANSWERS '9-10' FROM FILE IFIPAT ANSWER '11' FROM FILE CAPLUS ANSWER '12' FROM FILE WPIDS

=> d bib abs 1-12

L3 ANSWER 1 OF 12 USPATFULL

DUPLICATE 1

Full Text

AN 85:530 USPATFULL

TI Electrostatic spray apparatus

IN Reeves, Clarence C., Houston, TX, United

States

PA Speeflo Manufacturing Corporation,

Houston, TX, United States (U.S.

corporation)

PI US 4491276

19850101

AI US 1982-395143 DT Utility 19820706 (6)

or others

FS Granted

EXNAM Primary Examiner: Kashnikow, Andres
LREP Pearne, Gordon, Sessions, McCoy, Gri

LREP Pearne, Gordon, Sessions, McCoy, Granger & Tilberry

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 2 Drawing Page(s) LN.CNT 496

AB A pneumatic system is disclosed for regulating the acceleration and

running speed of an air turbine and

alternator used in electrostatic

spray apparatus having a self-contained electrical power supply. The air

turbine includes a rotor which is

arranged to be biased in a first direction of rotation by a flow of

impinging drive air and in a second opposite direction by a flow of impinging

brake air. The flows of air cooperatively result in rotation of the

turbine in a desired direction

of operation and enable a minimized period of acceleration for a predetermined running speed.

ANSWER 2 OF 12 USPATFULL DUPLICATE 2 Full Text 72:47458 USPATFULL ΑN SPRAY APPARATUS WITH ATOMIZATION DEVICE ΤI Walberg, Arvid C., Lombard, IL, United IN States Gourdine Coating Systems, Inc., PΑ Livingston, NJ, United States (U.S. corporation) 19720919 US 3692241 PΙ US 1970-73700 19700921 (5) ΑI Utility DТ Granted FS Primary Examiner: King, Lloyd L. EXNAM Brumbaugh, Graves, Donohue & Raymond LREP Number of Claims: 7 CLMN 3 Drawing Figure(s); 2 Drawing Page(s) DRWN LN.CNT 607 An improved atomization device for spray apparatus in which the nozzle used for atomization of materials has an exposed surface to atmosphere that is continually wiped by the flow of the material dispensed therefrom which forms finely divided atomized particles. After the exiting material has been atomized into particles they tend to be confined in a region generally in the shape of a cone, the base of which is adjacent the nozzle and extends forward therefrom. The flow of the atomized particles out of the cone-shaped region along their flow path may be termed as turbulent flow. In one exemplary embodiment, an electrical atomization nozzle produces finely divided particles in the presence of an electrical corona discharge having its principal ionization component directed in a rearward direction along the path of the projected coating material particles to be charged. In the aforesaid embodiment, a substantial portion of the coating material particles exiting from the material dispensing nozzle flows along the exposed surface of the nozzle in the presence of the corona discharge in the region adjacent thereto where an associated air stream intercepts the exiting coating material, thereby creating a significant vacuum due to aspirating action in the region adjacent to the nozzle, enabling the coating material to flow across the external surface of the nozzle under the influence of air in circular or

Full Text 94:11255 USPATFULL AN Method and apparatus for coating TT glassware Scholes, Addison B., Muncie, IN, United TN States Alltrista Corporation, Muncie, IN, United PA States (U.S. corporation) US 5284684 19940208 PΙ US 1992-845098 19920303 (7) ΑI DT Utility Granted FS EXNAM Primary Examiner: Pianalto, Bernard LREP Willian Brinks Hofer Gilson & Lione Number of Claims: 43 CLMN ECL Exemplary Claim: 1 8 Drawing Figure(s); 8 Drawing Page(s) DRWN LN.CNT 1145 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Electrostatic coating methods and apparatus are used to coat the exterior surface of glassware and preclude deposition on the interior surface and mouth of the glassware. A preferred stearic acid coating electrostatically applied over glassware with a hot end coating provides a more durable coating, improves scratch resistance and can reduce the amount of hot end coating for improved scratch resistance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 12 USPATFULL L3 Full Text 91:88855 USPATFULL AN Process for reducing environmental ΤI influences on the powder coating of a workpiece, and powder coating facility Nussbaumer, Hans, Wagen, Switzerland IN Walser, Felix, Hinwil, Switzerland Prazisions-Werkzeuge AG, Ruti, PA Switzerland (non-U.S. corporation) 19911029 PΙ US 5061510 19881130 (7) US 1988-277985 ΑI DE 1987-3743864 19871223 PRAI DT Utility FS Granted Primary Examiner: Lawrence, Evan EXNAM Antonelli, Terry Stout & Kraus LREP Number of Claims: 47 CLMN Exemplary Claim: 1,43 ECL 4 Drawing Figure(s); 2 Drawing Page(s) DRWN LN.CNT 621 In a powder coating facility wherein AB powder entrained with conditioned air sprayed from a feed conduit (11) to a workpiece, such as a can body (51), and excess powder is returned by suction by means of exhausts (29, 25), a conditioning chamber (21) is arranged around the coating zone (15) in order to prevent contamination of the dispensed powder due to influences of the environment (U). An air flow (S) is provided, produced from openings (23) of the chamber (21), to conduct the can bodies (51) into and through the chamber (21). The air flow from the openings of the chamber prevents influences of the ambient surroundings of the chamber

powder sprayed and retrieved in the

powder coating facility.

presence of the corona discharge.

turbulent motion, causing the

forms finely divided atomized

wiped by the flow of the

surface of the nozzle to be continuously

coating material before it subsequently

particles, which may be charged in the

CAS INDEXING IS AVAILABLE FOR THIS PATENT. A corona generating device for depositing ANSWER 5 OF 12 USPATFULL L3 negative charge on an imaging Full Text surface carried on conductive substrate 86:38206 USPATFULL comprises at least one elongated Method and apparatus for coating TT conductive corona discharge electrode, fluorescent lamp tubes means to connect the electrode to Jansma, Jon B., University Heights, OH, TN a corona generating potential source, at United States least one element adjacent the General Electric Company, Schenectady, PΑ corona discharge electrode capable of NY, United States (U.S. adsorbing nitrogen oxide species corporation) generated once the corona generating US 4597984 19860701 PΤ electrode is energized and capable 19851220 (6) US 1985-811891 AΙ of desorbing nitrogen oxide species once Continuation-in-part of Ser. No. US 1985-RLI that electrode is not 740460, filed on 3 Jun 1985, energized, the element being coated with now abandoned a substantially continuous thin Utility DT layer of a paint containing reactive Granted metal particles which will combine EXNAM Primary Examiner: Hoffman, James R. with the nitrogen oxide species, the Herkamp, N. D., Schlamp, Philip L., reactive metal being present in the Jacob, Fred paint in an amount sufficient to Number of Claims: 28 CLMN neutralize the nitrogen oxide species Exemplary Claim: 1,12 ECL when generated. In a preferred embodiment 7 Drawing Figure(s); 4 Drawing Page(s) DRWN the corona discharge electrode LN.CNT 525 comprises a thin wire coated at least in CAS INDEXING IS AVAILABLE FOR THIS PATENT. a discharge area with a Method and apparatus for dielectric material and the at least one electrostatically applying phosphor coatings to element comprises a conductive the interior surface of fluorescent lamp shield and an insulating housing having tubes includes equipment for two sides adjacent the shield to applying an electrical charge of one define the longitudinal opening to permit polarity to the glass wall and ions emitted from the electrical charge of the opposite electrode to be directed toward a surface polarity to the phosphor particles to to be charged. Both the shield cause the phosphor particles to adhere to and the two sides of the housing being the glass surface until the coated with a substantially particles can be heated to bond them to continuous thin layer of paint containing the interior surface of the reactive metal particles. glass by lehring. By using electrostatic Preferably the reactive metal particles deposition the lehring may be comprises lead, copper, nickel, done at a lower temperature than is gold, silver or zinc or mixtures thereof. required with conventional phosphor deposition using organic binders so that CAS INDEXING IS AVAILABLE FOR THIS PATENT. U-shaped fluorescent lamps do not experience distortion from the ANSWER 7 OF 12 USPATFULL lehring temperature. The invention L3Full Text includes the fluorescent lamps provided 86:24563 USPATFULL AN which are devoid of residue of Corona generating device ΤI organic binder. Reale, Louis, Rochester, NY, United IN CAS INDEXING IS AVAILABLE FOR THIS PATENT. States Xerox Corporation, Stamford, CT, United PA States (U.S. corporation) ANSWER 6 OF 12 USPATFULL L3 19860429 US 4585322 PΙ Full Text US 1985-703971 19850221 (6) ΑI 86:24564 USPATFULL AN 20030429 DCD Corona generating device ΤI Continuation-in-part of Ser. No. US 1984-RLI Ewing, Joan R., Fairport, NY, United TN 680879, filed on 12 Dec 1984 States DTUtility Wallin, Edwin M., Penfield, NY, United Granted FS States EXNAM Primary Examiner: Grimley, Arthur T.; Xerox Corporation, Stamford, CT, United Assistant Examiner: Warren, David States (U.S. corporation) 19860429 US 4585323 PΙ Mott, III, Samuel E. 19841212 (6) LREP ΑI US 1984-680867 Number of Claims: 16 CLMN 20030429 DCD Exemplary Claim: 1 ECL DT Utility 3 Drawing Figure(s); 3 Drawing Page(s) DRWN Granted EXNAM Primary Examiner: Grimley, Arthur T.; LN.CNT 602 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Assistant Examiner: Warren, David A corona generating device for depositing AB s. negative charge on an imaging LREP Mott, III, Samuel E. surface carried on conductive substrate Number of Claims: 14

comprises at least one elongated

conductive corona discharge electrode,

CLMN

ECL

DRWN

Exemplary Claim: 1

3 Drawing Figure(s); 3 Drawing Page(s)

a substantially continuous thin means to connect the electrode to layer of lead to neutralize the nitrogen a corona generating potential source, at oxide species when generated. least one element adjacent the In a preferred embodiment the corona corona discharge electrode capable of discharge electrode comprises a adsorbing nitrogen oxide species thin wire coated at least in a discharge generated once the corona generating area with a dielectric material electrode is energized and capable and the at least one element comprises a of desorbing nitrogen oxide species once conductive shield and an that electrode is not insulating housing having two sides energized, the element being coated with adjacent the shield to define the a substantially continuous thin longitudinal opening to permit ions dehydrated alkaline film of an alkali emitted from the electrode to be silicate to neutralize the directed toward a surface to be charged, nitrogen oxide species when generated. In both the shield and the two a preferred embodiment the sides of the housing being plated with a corona discharge electrode comprises a substantially continuous thin thin wire coated at least in a layer of lead. discharge area with a dielectric material and at least one element CAS INDEXING IS AVAILABLE FOR THIS PATENT. comprises a conductive shield and an insulating housing having two sides ANSWER 9 OF 12 IFIPAT COPYRIGHT 2003 IFI adjacent the shield to define the Full Text longitudinal opening to permit ions 1349573 IFIPAT; IFIUDB; IFICDB emitted from the electrode to be directed AN SPRAY GUN HAVING SELF-CONTAINED LOW ΤI toward a surface to be VOLTAGE AND HIGH VOLTAGE POWER charged, both the shield and the two SUPPLIES sides of the housing being coated Malcolm, David H, Randolph, NJ INF with a substantially continuous thin MALCOLM DAVID H IN dehydrated alkaline film of an Speeflo Manufacturing Corporation, PAF alkali silicate. Houston, TX SPEEFLO MFG CORP PA CAS INDEXING IS AVAILABLE FOR THIS PATENT. EXNAM Miller, J D EXNAM Schroeder, L C ANSWER 8 OF 12 USPATFULL L3 Pearne, Gordon, Sessions, McCoy & Granger AG Full Text 19810915 (CITED IN US 4290091 ΡI 86:24561 USPATFULL AN 022 LATER PATENTS) Corona generating device TΙ US 1979-47372 19790611 Altavela, Robert P., Rochester, NY, ΑI 26 Aug 1997 DCD United States Bailey, Raymond E., Webster, NY, United XPD 15 Sep 1998 19761227 CONTINUATION RLI US 1976-754161 States ABANDONED Ewing, Joan R., Fairport, NY, United US 4290091 19810915 FΙ UTILITY; REASSIGNED DT Wallin, Edwin M., Penfield, NY, United ELECTRICAL FS GRANTED Xerox Corporation, Stamford, CT, United PA CLMN States (U.S. corporation) 5 Drawing Sheet(s), 8 Figure(s). GI 19860429 US 4585320 PΙ An electrostatic spray gun apparatus for AΒ US 1984-680861 19841212 (6) ΑI coating systems having an DCD 20030429 entirely self-contained light weight Utility DTelectrical power supply adapted to Granted convert the kinetic energy available in a EXNAM Primary Examiner: Grimley, Arthur T.; moving air stream into the Assistant Examiner: Warren, David required high d.c. potential and which LREP Mott, III, Samuel E. dispenses with external electrical Number of Claims: 13 CLMN supply connections thereto. Exemplary Claim: 1 CLMN 3 Drawing Figure(s); 3 Drawing Page(s) DRWN 5 Drawing Sheet(s), 8 Figure(s). GI LN.CNT 501 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 10 OF 12 IFIPAT COPYRIGHT 2003 IFI A corona generating device for depositing L3Full Text negative charge on an imaging 0683291 IFIPAT; IFIUDB; IFICDB ΑN surface carried on conductive substrate ELECTROSTATIC SPRAYING METHODS AND TI comprises at least one elongated APPARATUS conductive corona discharge electrode, Bromley, Leo L, Nutley, NJ means to connect the electrode to INF Williams, James B, West Orange, NJ a corona generating potential source, at BROMLEY LEO L; WILLIAMS JAMES B IN least one element adjacent the Gourdine Coating Systems, Inc, Livingston, corona discharge electrode capable of PAF ŊJ adsorbing nitrogen oxide species GOURDINE COATING SYSTEMS INC generated once the corona generating PA EXNAM Wood, Jr, M Henson electrode is energized and capable EXNAM Grant, Edwin D of desorbing nitrogen oxide species once Brumbaugh, Graves, Donohue & Raymond AG that electrode is not 19720118 (CITED IN US 3635401 ΡI energized, the element being plated with

	AB A combination electrostatic spray gun and
008 LATER PATENTS)	niston in cylinder point
AI 05 1303 OUT I	delivery system was developed for coating
XPD 18 Jan 1989 FI US 3635401 19720118	metal electrodes with
DT UTILITY; REASSIGNED	electrocond. paints. The predetd. amt. of
FS MECHANICAL	<pre>paint, e.g. ruthenium trichloride [10049-08-8]-org. Ti compd.</pre>
GRANTED	dissolved in alc., was fed by a
CLMN 17 GI 2 Drawing Sheet(s), 4 Figure(s).	single stroke of the piston from the
AB Apparatus and methods for	cylindrical container to the
electrostatically coating a workpiece in which	electrostatic spray gun nozzle. Two such
a spray of atomized coating material	applicators were coupled to coat both sides of a Ti [7440-32-6] anode. The
particles is charged electrically	coating was fired at
and thereafter confined within a	180° and then at 450° to obtain a deposit
surrounding shroud of moving air to control dispersal of the charged particles	of Ru oxide
and to increase the charge	[11113-84-1] and TiO2 [13463-67-7] on the
potential carried by the particles. The	surface. There was virtually no
shroud of air issues from the	waste of paint when the method was used.
spray apparatus as a multiplicity of	L3 ANSWER 12 OF 12 WPIDS (C) 2003 THOMSON
separate airstreams that extend	DERWENT
toward the workpiece to be coated a distance sufficient to confine the	Full Text
charge particles against electrostatic	AN 1996-054231 [06] WPIDS
attraction to objects other than	DNN N1996-045494
the workpiece. Electrostatic charges are	TI High voltage electrostatic multicolour coater for motor vehicle - uses air
imparted to the coating material	blower to dry electrode attachment with
particles by a rearwardly directed corona	each delivery of coated matter
discharge established between a corona electrode positioned in the spray	after washing with water from cleaning
path and the spray head. An	device.
air-operated switch energizes the corona	DC P42 Q35 X25
electrode upon the flow of air	PA (TRIN-N) TRINITY IND CORP
to the spray head, thus preventing	CYC 1 PI JP 07313909 A 19951205 (199606)*
sparking between the corona electrode and the spray head by ensuring that the	5p
corona electrode is immersed in	ADT JP 07313909 A JP 1994-115311 19940527
an airflow prior to being energized.	PRAI JP 1994-115311 19940527
CLMN 17	AN 1996-054231 [06] WPIDS
GI 2 Drawing Sheet(s), 4 Figure(s).	AB JP 07313909 A UPAB: 19960212 The coater has a slat conveyor (2) which
GODYDIGUE 2002 NGC	sets a coated matter (W) to run
L3 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS	along a painting zone (T) driven by an
Full Text AN 1976:49068 CAPLUS	endless chain. A printing drying
DN 84:49068	oven (H) is installed at fixed intervals
TI Coating metal anodes with electroconductive	through an insulation prop which
paint	enables the paint to dry quickly. A high voltage supply unit (3) is set
IN Krause, Janusz J. H.; Denton, David A.	below the conveyor which
PA Imperial Chemical Industries Ltd., UK	transmits electricity while the coated
SO U.S., 5 pp. CODEN: USXXAM	matter passes in painting zone
DT Patent	through an electrode attachment. An air
LA English	blower (8) is provided in drying the electrode attachment after washing with
FAN.CNT 1	water from a cleaning device
PATENT NO. KIND DATE	(7).
APPLICATION NO. DATE	ADVANTAGE - Provides simple removal of
	adhered paints since it is not
PI US 3906122 A 19750916 US	printed out to insulation prop. Prevents
1974-436349 19740124	high voltage leak to slat conveyor since electrode attachment is
GB 1393333 A 19750507 GB	always dry.
1973-5237 19740117 AU 7464770 A1 19750724 AU	Dwg.1/3
1974-64770 19740123	
IT 1007138 A 19761030 IT	
1974-19895 19740128	=> log y
BE 810290 A1 19740729 BE	COST IN U.S. DOLLARS SINCE FILE TOTAL
1974-140284 19740129 JP 49107340 A2 19741011 JP	01100 1100 101100
JP 49107340 A2 19741011 JP 1974-11924 19740130	ENTRY SESSION
BR 7400685 AO 19741105 BR	FULL ESTIMATED COST
1974-685 19740131	71.19 80.62
ES 422883 A1 19760916 ES	DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
1974-422883 19740202	SINCE FILE TOTAL
PRAI GB 1973-5237 19730202	

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